

This fact is also reflected in the relative percentage of total land area covered by providers.<sup>2</sup> The following chart reflects January 2014 national data:

Provider	4G % Total Area	3G/4G % Total Area
National Provider #1	52%	60%
National Provider #2	48%	56%
National Provider #3	12%	23%
National Provider #4	9%	14%

The following chart reflects the same data for North Carolina:

Provider	4G % Total Area	3G/4G % Total Area
National Provider #1	81.24%	86.94%
National Provider #2	66.14%	73.00%
National Provider #3	26.68%	47.62%
National Provider #4	11.26%	16.11%

The Commission's 16th Mobile Wireless Competition Report issued last year estimated that 92 percent of non-rural consumers, but only 37 percent of rural consumers, are covered by at least four 3G or 4G mobile wireless providers networks. In order to expand networks' reach, and thus consumer choice, in rural areas all wireless providers – from the largest national providers, to smaller regional and rural providers – must have a fair shot at accessing low-band spectrum.

Today, most of this low-band spectrum is in the hands of just two providers. The Incentive Auction offers the opportunity, possibly the last for years to come, to make low-band spectrum available to any mobile wireless provider, in any market, that is willing and able to compete at auction. I will shortly present a draft order to my fellow Commissioners designed to ensure that every mobile wireless provider has the opportunity to bid in every market, and that every consumer enjoys the benefits of a competitive wireless marketplace. My proposal would reserve a modest amount of this low-band spectrum in each market for providers that, as a result of the historical accident of previous spectrum assignments, lack such low-band capacity. This proposal will also contain safeguards to ensure that all bidders for reserved spectrum licenses bear a fair share of the cost of making incentive payments to broadcasters who voluntarily relinquish some or all of their spectrum usage rights.<sup>3</sup>

Designed with this equity and openness in mind, the Incentive Auction can deliver to consumers, regardless of their zip code, greater wireless competition, improved services, and lower costs, significant investments in America's broadcasters to innovate and compete, and funding for the FirstNet public safety broadband network.

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<sup>2</sup> The national and state data on land area coverage represent a Commission staff analysis at the census block level, using © 2013-2014 Mosaik Solutions, LLC., January 2014 CoverageRight Data.

<sup>3</sup> The recent H Block auction did not include such a reserve. I also will recommend to my fellow Commissioners that there be no reserve for the upcoming AWS-3 auction.

Thank you again for apprising me of your views on this important matter. I look forward to working with you toward our mutual goal of a successful auction for the benefit of America's consumers, wireless providers, broadcasters and first responders.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tom Wheeler", with a stylized flourish extending to the right.

Tom Wheeler

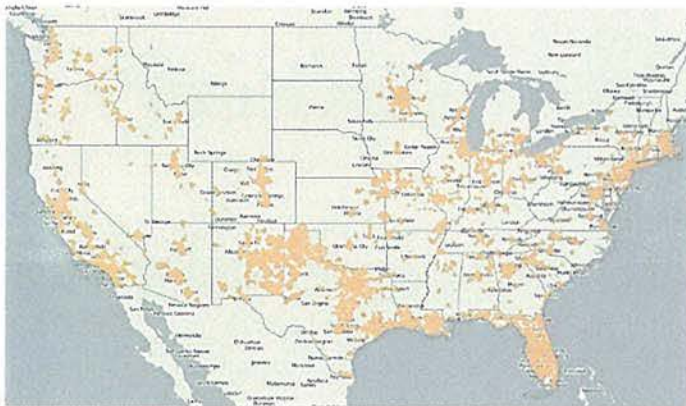
Enclosure

## NATIONAL BROADBAND MAPS COVERAGE COMPARISONS

NATIONAL MOBILE WIRELESS PROVIDERS CURRENTLY HOLDING NEARLY 2/3 OF LOW-BAND SPECTRUM LICENSES:



OTHER NATIONAL MOBILE WIRELESS PROVIDERS:







OFFICE OF  
THE CHAIRMAN

FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON

April 17, 2014

The Honorable Tony Cárdenas  
U.S. House of Representatives  
Washington, D.C. 20515

Dear Representative Cárdenas:

Thank you for sharing your views on the importance of the Spectrum Incentive Auction. The Incentive Auction is a once-in-a-lifetime opportunity to expand the benefits of mobile wireless coverage and competition to consumers across the Nation – particularly consumers in rural areas – offering more choices of wireless providers, lower prices, and higher quality mobile services, while also providing a game-changing financial opportunity to broadcasters and fully funding the Public Safety Trust Fund (PSTF) for FirstNet.<sup>1</sup> I agree that finding an approach that maximizes participation by both broadcasters and wireless providers in the auction is crucial to achieving these goals.

Consistent with the Spectrum Act, all who want to participate in the Incentive Auction will be able to bid. At the same time, a priority of the auction should be to assure that companies that already possess low-band spectrum do not exploit the auction to keep competitors from accessing the spectrum necessary to provide competition. This is particularly important in rural areas where low-band spectrum is necessary if competitors are to fill in the blank white spaces on the coverage maps we see on TV commercials. Our authority to pursue this important objective was confirmed in the Spectrum Act.

Across our country, consumers and businesses expect to have access to wireless connectivity anywhere, anytime. Today, there are more connected devices than there are people in the U.S., and about 60 percent of Americans use data-hungry smartphones. This is a dramatic increase from just a few years ago.

With increased demand for wireless services comes an increased need for spectrum. But not all spectrum frequencies are created equal. Spectrum below 1 GHz, referred to as “low-band” spectrum, has physical properties that increase the reach of mobile networks over long distances at far less cost than spectrum above 1 GHz, while also reaching deep into buildings and urban canyons. While other cost-related factors exist, access to a sufficient amount of low-band spectrum is a threshold requirement for extending and improving service in both rural and urban areas.

This is not mere theory: just compare the attached coverage maps of the two largest national mobile wireless providers, which hold a combined share of almost two-thirds of all low-band spectrum licenses, to the other national providers, which hold a combined share of around 10 percent of all low-band spectrum licenses. Simply put, because of the better propagation properties of low-band spectrum, wireless providers holding more low-band spectrum licenses provide more rural coverage.

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<sup>1</sup> Proceeds from the Commission’s recent H Block auction, and AWS-3 auction, to be held later this year, will also be used to fund the PSTF for FirstNet. I expect that these two auctions will nearly or fully fund the PSTF with amounts needed for FirstNet, even before the Incentive Auction in 2015.

This fact is also reflected in the relative percentage of total land area covered by providers.<sup>2</sup> The following chart reflects January 2014 national data:

Provider	4G % Total Area	3G/4G % Total Area
National Provider #1	52%	60%
National Provider #2	48%	56%
National Provider #3	12%	23%
National Provider #4	9%	14%

The following chart reflects the same data for California:

Provider	4G % Total Area	3G/4G % Total Area
National Provider #1	58.94%	73.14%
National Provider #2	52.36%	61.91%
National Provider #3	7.28%	25.96%
National Provider #4	32.10%	37.12%

The Commission's 16th Mobile Wireless Competition Report issued last year estimated that 92 percent of non-rural consumers, but only 37 percent of rural consumers, are covered by at least four 3G or 4G mobile wireless providers networks. In order to expand networks' reach, and thus consumer choice, in rural areas all wireless providers – from the largest national providers, to smaller regional and rural providers – must have a fair shot at accessing low-band spectrum.

Today, most of this low-band spectrum is in the hands of just two providers. The Incentive Auction offers the opportunity, possibly the last for years to come, to make low-band spectrum available to any mobile wireless provider, in any market, that is willing and able to compete at auction. I will shortly present a draft order to my fellow Commissioners designed to ensure that every mobile wireless provider has the opportunity to bid in every market, and that every consumer enjoys the benefits of a competitive wireless marketplace. My proposal would reserve a modest amount of this low-band spectrum in each market for providers that, as a result of the historical accident of previous spectrum assignments, lack such low-band capacity. This proposal will also contain safeguards to ensure that all bidders for reserved spectrum licenses bear a fair share of the cost of making incentive payments to broadcasters who voluntarily relinquish some or all of their spectrum usage rights.<sup>3</sup>

Designed with this equity and openness in mind, the Incentive Auction can deliver to consumers, regardless of their zip code, greater wireless competition, improved services, and lower costs, significant investments in America's broadcasters to innovate and compete, and funding for the FirstNet public safety broadband network.

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Thank you again for apprising me of your views on this important matter. I look forward to working with you toward our mutual goal of a successful auction for the benefit of America's consumers, wireless providers, broadcasters and first responders.

Sincerely,

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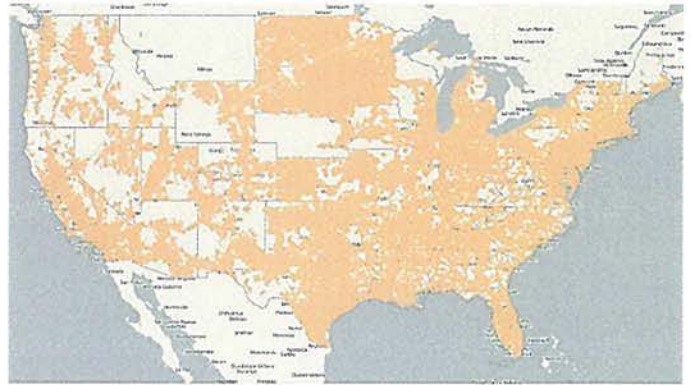
Tom Wheeler

Enclosure



## NATIONAL BROADBAND MAPS COVERAGE COMPARISONS

NATIONAL MOBILE WIRELESS PROVIDERS CURRENTLY HOLDING NEARLY 2/3 OF LOW-BAND SPECTRUM LICENSES:



OTHER NATIONAL MOBILE WIRELESS PROVIDERS:





FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON

OFFICE OF  
THE CHAIRMAN

April 17, 2014

The Honorable Joaquin Castro  
U.S. House of Representatives  
Washington, D.C. 20515

Dear Representative Castro:

Thank you for sharing your views on the importance of the Spectrum Incentive Auction. The Incentive Auction is a once-in-a-lifetime opportunity to expand the benefits of mobile wireless coverage and competition to consumers across the Nation – particularly consumers in rural areas – offering more choices of wireless providers, lower prices, and higher quality mobile services, while also providing a game-changing financial opportunity to broadcasters and fully funding the Public Safety Trust Fund (PSTF) for FirstNet.<sup>1</sup> I agree that finding an approach that maximizes participation by both broadcasters and wireless providers in the auction is crucial to achieving these goals.

Consistent with the Spectrum Act, all who want to participate in the Incentive Auction will be able to bid. At the same time, a priority of the auction should be to assure that companies that already possess low-band spectrum do not exploit the auction to keep competitors from accessing the spectrum necessary to provide competition. This is particularly important in rural areas where low-band spectrum is necessary if competitors are to fill in the blank white spaces on the coverage maps we see on TV commercials. Our authority to pursue this important objective was confirmed in the Spectrum Act.

Across our country, consumers and businesses expect to have access to wireless connectivity anywhere, anytime. Today, there are more connected devices than there are people in the U.S., and about 60 percent of Americans use data-hungry smartphones. This is a dramatic increase from just a few years ago.

With increased demand for wireless services comes an increased need for spectrum. But not all spectrum frequencies are created equal. Spectrum below 1 GHz, referred to as “low-band” spectrum, has physical properties that increase the reach of mobile networks over long distances at far less cost than spectrum above 1 GHz, while also reaching deep into buildings and urban canyons. While other cost-related factors exist, access to a sufficient amount of low-band spectrum is a threshold requirement for extending and improving service in both rural and urban areas.

This is not mere theory: just compare the attached coverage maps of the two largest national mobile wireless providers, which hold a combined share of almost two-thirds of all low-band spectrum licenses, to the other national providers, which hold a combined share of around 10 percent of all low-band spectrum licenses. Simply put, because of the better propagation properties of low-band spectrum, wireless providers holding more low-band spectrum licenses provide more rural coverage.

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<sup>1</sup> Proceeds from the Commission’s recent H Block auction, and AWS-3 auction, to be held later this year, will also be used to fund the PSTF for FirstNet. I expect that these two auctions will nearly or fully fund the PSTF with amounts needed for FirstNet, even before the Incentive Auction in 2015.



This fact is also reflected in the relative percentage of total land area covered by providers.<sup>2</sup> The following chart reflects January 2014 national data:

<b>Provider</b>	<b>4G % Total Area</b>	<b>3G/4G % Total Area</b>
National Provider #1	52%	60%
National Provider #2	48%	56%
National Provider #3	12%	23%
National Provider #4	9%	14%

The following chart reflects the same data for Texas:

<b>Provider</b>	<b>4G % Total Area</b>	<b>3G/4G % Total Area</b>
National Provider #1	52.20%	76.93%
National Provider #2	71.84%	85.90%
National Provider #3	36.01%	57.89%
National Provider #4	16.78%	35.69%

The Commission's 16th Mobile Wireless Competition Report issued last year estimated that 92 percent of non-rural consumers, but only 37 percent of rural consumers, are covered by at least four 3G or 4G mobile wireless providers networks. In order to expand networks' reach, and thus consumer choice, in rural areas all wireless providers – from the largest national providers, to smaller regional and rural providers – must have a fair shot at accessing low-band spectrum.

Today, most of this low-band spectrum is in the hands of just two providers. The Incentive Auction offers the opportunity, possibly the last for years to come, to make low-band spectrum available to any mobile wireless provider, in any market, that is willing and able to compete at auction. I will shortly present a draft order to my fellow Commissioners designed to ensure that every mobile wireless provider has the opportunity to bid in every market, and that every consumer enjoys the benefits of a competitive wireless marketplace. My proposal would reserve a modest amount of this low-band spectrum in each market for providers that, as a result of the historical accident of previous spectrum assignments, lack such low-band capacity. This proposal will also contain safeguards to ensure that all bidders for reserved spectrum licenses bear a fair share of the cost of making incentive payments to broadcasters who voluntarily relinquish some or all of their spectrum usage rights.<sup>3</sup>

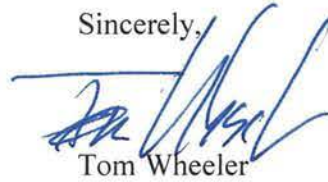
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Thank you again for apprising me of your views on this important matter. I look forward to working with you toward our mutual goal of a successful auction for the benefit of America's consumers, wireless providers, broadcasters and first responders.

Sincerely,

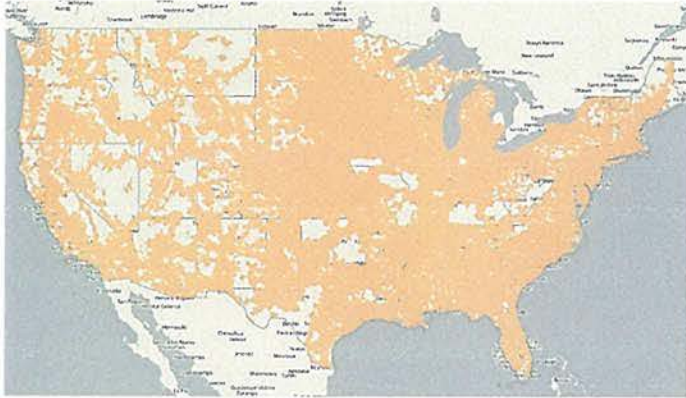
A handwritten signature in blue ink, appearing to read "Tom Wheeler", is written over a horizontal line.

Tom Wheeler

Enclosure

## NATIONAL BROADBAND MAPS COVERAGE COMPARISONS

NATIONAL MOBILE WIRELESS PROVIDERS CURRENTLY HOLDING NEARLY 2/3 OF LOW-BAND SPECTRUM LICENSES:



OTHER NATIONAL MOBILE WIRELESS PROVIDERS:







OFFICE OF  
THE CHAIRMAN

FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON

April 17, 2014

The Honorable Donna M. Christensen  
U.S. House of Representatives  
Washington, D.C. 20515

Dear Representative Christensen:

Thank you for sharing your views on the importance of the Spectrum Incentive Auction. The Incentive Auction is a once-in-a-lifetime opportunity to expand the benefits of mobile wireless coverage and competition to consumers across the Nation – particularly consumers in rural areas – offering more choices of wireless providers, lower prices, and higher quality mobile services, while also providing a game-changing financial opportunity to broadcasters and fully funding the Public Safety Trust Fund (PSTF) for FirstNet.<sup>1</sup> I agree that finding an approach that maximizes participation by both broadcasters and wireless providers in the auction is crucial to achieving these goals.

Consistent with the Spectrum Act, all who want to participate in the Incentive Auction will be able to bid. At the same time, a priority of the auction should be to assure that companies that already possess low-band spectrum do not exploit the auction to keep competitors from accessing the spectrum necessary to provide competition. This is particularly important in rural areas where low-band spectrum is necessary if competitors are to fill in the blank white spaces on the coverage maps we see on TV commercials. Our authority to pursue this important objective was confirmed in the Spectrum Act.

Across our country, consumers and businesses expect to have access to wireless connectivity anywhere, anytime. Today, there are more connected devices than there are people in the U.S., and about 60 percent of Americans use data-hungry smartphones. This is a dramatic increase from just a few years ago.

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<sup>1</sup> Proceeds from the Commission’s recent H Block auction, and AWS-3 auction, to be held later this year, will also be used to fund the PSTF for FirstNet. I expect that these two auctions will nearly or fully fund the PSTF with amounts needed for FirstNet, even before the Incentive Auction in 2015.

This fact is also reflected in the relative percentage of total land area covered by providers.<sup>2</sup> The following chart reflects January 2014 national data:

Provider	4G % Total Area	3G/4G % Total Area
National Provider #1	52%	60%
National Provider #2	48%	56%
National Provider #3	12%	23%
National Provider #4	9%	14%

The following chart reflects the same data for the U.S. Virgin Islands:

Provider	4G % Total Area	3G/4G % Total Area
National Provider #1	0%	0%
National Provider #2	99.35%	99.66%
National Provider #3	0%	72.71%
National Provider #4	0%	0%

Note: Neither Verizon nor T-Mobile hold spectrum in the US Virgin Islands

The Commission's 16th Mobile Wireless Competition Report issued last year estimated that 92 percent of non-rural consumers, but only 37 percent of rural consumers, are covered by at least four 3G or 4G mobile wireless providers networks. In order to expand networks' reach, and thus consumer choice, in rural areas all wireless providers – from the largest national providers, to smaller regional and rural providers – must have a fair shot at accessing low-band spectrum.

Today, most of this low-band spectrum is in the hands of just two providers. The Incentive Auction offers the opportunity, possibly the last for years to come, to make low-band spectrum available to any mobile wireless provider, in any market, that is willing and able to compete at auction. I will shortly present a draft order to my fellow Commissioners designed to ensure that every mobile wireless provider has the opportunity to bid in every market, and that every consumer enjoys the benefits of a competitive wireless marketplace. My proposal would reserve a modest amount of this low-band spectrum in each market for providers that, as a result of the historical accident of previous spectrum assignments, lack such low-band capacity. This proposal will also contain safeguards to ensure that all bidders for reserved spectrum licenses bear a fair share of the cost of making incentive payments to broadcasters who voluntarily relinquish some or all of their spectrum usage rights.<sup>3</sup>

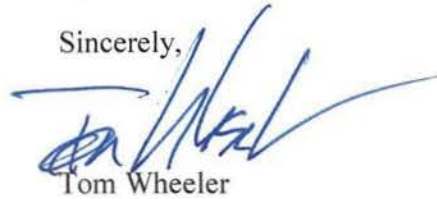
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Thank you again for apprising me of your views on this important matter. I look forward to working with you toward our mutual goal of a successful auction for the benefit of America's consumers, wireless providers, broadcasters and first responders.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tom Wheeler", with a long horizontal flourish extending to the right.

Tom Wheeler

Enclosure



## NATIONAL BROADBAND MAPS COVERAGE COMPARISONS

NATIONAL MOBILE WIRELESS PROVIDERS CURRENTLY HOLDING NEARLY 2/3 OF LOW-BAND SPECTRUM LICENSES:



OTHER NATIONAL MOBILE WIRELESS PROVIDERS:





FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON

OFFICE OF  
THE CHAIRMAN

April 17, 2014

The Honorable Yvette D. Clarke  
U.S. House of Representatives  
Washington, D.C. 20515

Dear Representative Clarke:

Thank you for sharing your views on the importance of the Spectrum Incentive Auction. The Incentive Auction is a once-in-a-lifetime opportunity to expand the benefits of mobile wireless coverage and competition to consumers across the Nation – particularly consumers in rural areas – offering more choices of wireless providers, lower prices, and higher quality mobile services, while also providing a game-changing financial opportunity to broadcasters and fully funding the Public Safety Trust Fund (PSTF) for FirstNet.<sup>1</sup> I agree that finding an approach that maximizes participation by both broadcasters and wireless providers in the auction is crucial to achieving these goals.

Consistent with the Spectrum Act, all who want to participate in the Incentive Auction will be able to bid. At the same time, a priority of the auction should be to assure that companies that already possess low-band spectrum do not exploit the auction to keep competitors from accessing the spectrum necessary to provide competition. This is particularly important in rural areas where low-band spectrum is necessary if competitors are to fill in the blank white spaces on the coverage maps we see on TV commercials. Our authority to pursue this important objective was confirmed in the Spectrum Act.

Across our country, consumers and businesses expect to have access to wireless connectivity anywhere, anytime. Today, there are more connected devices than there are people in the U.S., and about 60 percent of Americans use data-hungry smartphones. This is a dramatic increase from just a few years ago.

With increased demand for wireless services comes an increased need for spectrum. But not all spectrum frequencies are created equal. Spectrum below 1 GHz, referred to as “low-band” spectrum, has physical properties that increase the reach of mobile networks over long distances at far less cost than spectrum above 1 GHz, while also reaching deep into buildings and urban canyons. While other cost-related factors exist, access to a sufficient amount of low-band spectrum is a threshold requirement for extending and improving service in both rural and urban areas.

This is not mere theory: just compare the attached coverage maps of the two largest national mobile wireless providers, which hold a combined share of almost two-thirds of all low-band spectrum licenses, to the other national providers, which hold a combined share of around 10 percent of all low-band spectrum licenses. Simply put, because of the better propagation properties of low-band spectrum, wireless providers holding more low-band spectrum licenses provide more rural coverage.

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This fact is also reflected in the relative percentage of total land area covered by providers.<sup>2</sup> The following chart reflects January 2014 national data:

<b>Provider</b>	<b>4G % Total Area</b>	<b>3G/4G % Total Area</b>
National Provider #1	52%	60%
National Provider #2	48%	56%
National Provider #3	12%	23%
National Provider #4	9%	14%

The following chart reflects the same data for New York:

<b>Provider</b>	<b>4G % Total Area</b>	<b>3G/4G % Total Area</b>
National Provider #1	72.67%	85.49%
National Provider #2	60.54%	77.96%
National Provider #3	4.89%	35.51%
National Provider #4	10.43%	18.77%

The Commission's 16th Mobile Wireless Competition Report issued last year estimated that 92 percent of non-rural consumers, but only 37 percent of rural consumers, are covered by at least four 3G or 4G mobile wireless providers networks. In order to expand networks' reach, and thus consumer choice, in rural areas all wireless providers – from the largest national providers, to smaller regional and rural providers – must have a fair shot at accessing low-band spectrum.

Today, most of this low-band spectrum is in the hands of just two providers. The Incentive Auction offers the opportunity, possibly the last for years to come, to make low-band spectrum available to any mobile wireless provider, in any market, that is willing and able to compete at auction. I will shortly present a draft order to my fellow Commissioners designed to ensure that every mobile wireless provider has the opportunity to bid in every market, and that every consumer enjoys the benefits of a competitive wireless marketplace. My proposal would reserve a modest amount of this low-band spectrum in each market for providers that, as a result of the historical accident of previous spectrum assignments, lack such low-band capacity. This proposal will also contain safeguards to ensure that all bidders for reserved spectrum licenses bear a fair share of the cost of making incentive payments to broadcasters who voluntarily relinquish some or all of their spectrum usage rights.<sup>3</sup>

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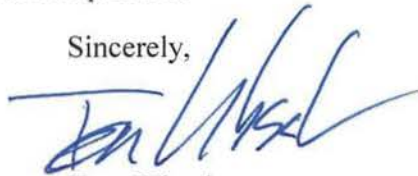
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Thank you again for apprising me of your views on this important matter. I look forward to working with you toward our mutual goal of a successful auction for the benefit of America's consumers, wireless providers, broadcasters and first responders.

Sincerely,

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Tom Wheeler

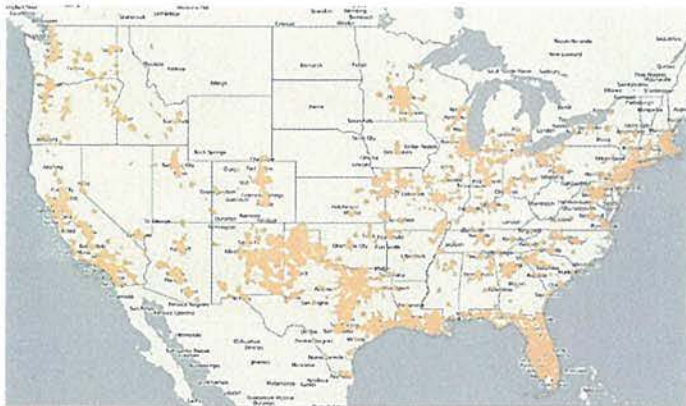
Enclosure

## NATIONAL BROADBAND MAPS COVERAGE COMPARISONS

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OTHER NATIONAL MOBILE WIRELESS PROVIDERS:





FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON

OFFICE OF  
THE CHAIRMAN

April 17, 2014

The Honorable Gerald E. Connolly  
U.S. House of Representatives  
Washington, D.C. 20515

Dear Representative Connolly:

Thank you for sharing your views on the importance of the Spectrum Incentive Auction. The Incentive Auction is a once-in-a-lifetime opportunity to expand the benefits of mobile wireless coverage and competition to consumers across the Nation – particularly consumers in rural areas – offering more choices of wireless providers, lower prices, and higher quality mobile services, while also providing a game-changing financial opportunity to broadcasters and fully funding the Public Safety Trust Fund (PSTF) for FirstNet.<sup>1</sup> I agree that finding an approach that maximizes participation by both broadcasters and wireless providers in the auction is crucial to achieving these goals.

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